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(54) PRODUCTION OF COMB-SHAPED ACTUATOR

(57) Abstract:

PURPOSE: To control the interelectrode gap to the μ m order by forming the combined comb-shaped movable electrode and fixed electrode from a substrate.

CONSTITUTION: A silicon substrate 1 coated with an Al mask 4 or a silver oxide-film mask is dry-etched with a mixture of gaseous SF_6 and O_2 and worked. Consequently, the recesses 51 and 52 having a vertical side wall and a throughhole 53 are formed, and a comb-shaped actuator consisting of a movable part having optional shape and size and a fixed part is obtained. Further, a silicon oxide film as an etching stop layer is embedded in the substrate to attain higher-precision working.

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